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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,082	10/16/2001	Vardarajan R. Iyengar	DP-305851 7500/95	5556

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EXAMINER
WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
3683	

DATE MAILED: 10/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/981,082	Applicant(s) IYENGAR ET AL.	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-8,12,13,16,17,20 and 21 is/are rejected.

7)☒ Claim(s) 9-11,14,15,18,19,22 and 23 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-8, 12, 13, 16, 17, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,788,028 to Bieber.

Re-claims 1-2, Bieber discloses a device and method of controlling a damping force of a damper, comprising: generating a damping force in response to a first operating current; determining a temperature compensation; applying a temperature compensation to the first current to generate a second operating current as a function of both a desired force level and operating temperature, see column 3 lines 55-67 to column 4 lines 1-43.

Re-claim 3, Bieber discloses a system, comprising: a damper operable to generate a damping force in response to a first operating current; a controller (CPU); the controller generates a second operating current as a function of a desired force level, column 3 lines 55-63; the controller determines a temperature compensation as a function of temperature, defined as the third signal column 4 line 34; the controller applies the temperature compensation to the second operating current to generate the first operating current as a function of the desired force level and operating temperature of the damper, column 5 lines 1-5.

Re-claims 5-7, the controller includes a module, such as a remote sensors, that generate the operating temperature equating to an ambient temperature and a measured temperature of the damper and estimated damper temperature.

Re-claim 8, the temperature compensation factor of Bieber is a scale factor, this factor is applied to the second operating current thus providing an adjusted first operating current.

Re-claim 12, Bieber discloses a method for controlling a damping force of a damper, comprising: generating a first operating current; determining a scale factor (compensation factor) as a function of operating temperature; generating a second operating current as a product of the first operating current and the scale factor; the second operating current is supplied to the damper to control the damping force as a function of the desired force level and the operating temperature of the damper.

Re-claim 13, Bieber discloses a method for controlling a damping force of a damper, comprising: generating a first operating current as a function of desired force level, this is seen as an initial operating value such as when the vehicle is traveling straight on a smooth surface; determining a scale factor as a function of operating temperature and an offset value as a function of velocity; generating a second operating current to the damper in response to the scale factor and the offset value.

Re-claim 16, Bieber discloses a device for controlling a damping force, comprising: a first module for generating a first operating current as a function of a desired force level; a second module determines a scale factor as a function of temperature and generates a second operating current as a product of the first operating current and the scale factor, the CPU or

processor performs the previously recited functions; the second module provides the damper with the second operating current.

Re-claim 17, Bieber discloses a device for controlling a damping force of a damper, comprising: a first module that generates a first operating current as a function of desired force level, this is seen as an initial operating value such as when the vehicle is traveling straight on a smooth surface; a second module determines a scale factor as a function of operating temperature and an offset value as a function of velocity, the second module provides the damper with the second operating current in response to the scale factor and the offset value. The CPU is both the first and second module.

Re-claim 20, Bieber discloses a system, comprising: a damper operable to provide a damping force in response to a first operating current; a controller; the controller generates a second operating current as a function of a desired force level, column 3 lines 55-63; the controller determines a scale factor (or temperature compensation factor); the first operating current is outputted as a product of the second operating current and the scale factor, in essence the first operating current is a corrected current value based upon the scale factor; the controller applies the first current to the damper.

Re-claim 21, Bieber discloses a system, comprising: a damper operable to provide a damping force in response to a first operating current; a controller; the controller generates a second operating current as a function of a desired force level, column 3 lines 55-63; the controller determines a scale factor (or temperature compensation factor) and an offset value (such as relative speed between the wheel and chassis); the controller is operable to provide the first operating current to the damper in response to a determination of the scale factor and the

offset value. The final output current to the damper will take into account the temperature of the damper and relative velocity between the wheel and chassis.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bieber in view of US 5,396,973 to Schwemmer et al.

Bieber fails to teach the use of the temperature compensation operation in a damper having a magnetorheological fluid. However, Schwemmer et al. teaches temperature compensation in magnetorheological dampers. It would have been obvious to one of ordinary skill in the art to have utilized the temperature compensation methods of Bieber in a magnetorheological damper as taught by Schwemmer et al., thus providing a means of temperature compensation in a magnetorheological damper.

Allowable Subject Matter

6. Claims 9-11, 14, 15, 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mitsui teaches temperature compensation for a damper having an electro-viscous fluid. Emura et al. teaches temperature compensation for a damper. Maguran, Jr. teaches a temperature responsive suspension system. Jakobs et al. teaches temperature compensation for a damper having an MR fluid.

8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is (703) 305-1346. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder, can be reached at (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

TJW

October 23, 2002

JACK LAVINDER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600
10/28/02